

Bethany Witemeyer

bethanywitemeyer@tamu.edu
(325)668-4598 (cell)

Education

Doctor of Philosophy
Computer Science (GPA 4.0)
Texas A&M University
August 2020 – present

Bachelor of Science
Mathematics and Computer Science (GPA: 4.0)
Abilene Christian University
August 2016 – May 2020

Publications

- Bethany Witemeyer, Nicholas J. Weidner, Timothy A. Davis, Theodore Kim, and Shinjiro Sueda. 2021. QLB: Collision-Aware Quasi-Newton Solver with Cholesky and L-BFGS for Nonlinear Time Integration. In *ACM Motion, Interaction and Games (MIG '21)*. Article 14, 1–7. DOI:<https://doi.org/10.1145/3487983.3488297>

Awards

- Texas A&M University Graduate Diversity Excellence Fellowship in Computer Science [\$114,000]
- Abilene Christian University University Scholar
- David K. Hughes Freshman Mathematics Award for 2016-2017

Professional History

Graduate Research Assistant
September 2020 – present
Texas A&M University

- Investigating applications of machine learning to physically-based animation.
- Conducted research on three-dimensional deformable object simulation.

Research Intern

May 2022 – August 2022
NVIDIA

- Investigated applications of machine learning to physics simulation.
- Presented work done over the summer at NVIDIA's Summer Intern Poster Session.

Teacher's Assistant

August 2019 – May 2020
Abilene Christian University School of Information Technology and Computing

- Graded assignments for Analysis of Algorithms and Programming Languages.

Mathematics Tutor

August 2016 – March 2020

Abilene Christian University Department of Mathematics

- Served as tutor for students in Quantitative Reasoning, Finite Mathematics, Elementary Statistics, Pre-Calculus, and Calculus.
- Helped students increase competence and confidence with concepts learned in class through assisting with homework assignments.

Software Engineering Intern

May 2019 – August 2019

Faithlife

- Wrote code to calculate and store fee information on orders.
- Built and consumed an internal API to store and retrieve information used in fee calculations.
- Presented work done to the company through demos on an almost biweekly basis.

Teacher's Assistant

August 2017 – December 2018

Abilene Christian University School of Information Technology and Computing

- Held tutoring hours for students in introductory level programming classes, assisting with assignments and deepening understanding of concepts.
- Developed course materials in the form of instructional videos for problem-solving strategies.

Research Assistant

June 2018 – August 2018

Abilene Christian University Nuclear Energy eXperimental Testing Laboratory

- Developed software to simulate sound waves passing through a boundary to aid in development of instrumentation for the laboratory.
- Wrote, and later modified, code to produce a system curve for the test loop to aid in understanding how high-temperature fluids will behave.

Skills

- C++, Python, PyTorch, Java, OpenGL, git, SQL, MATLAB, Visual Studio, Microsoft Suite, Maple, C#, R

Memberships

- Alpha Chi Honor Society
- Phi Eta Sigma Freshman Honor Society

Service

- Assisted with a student-led orientation for incoming computer science graduate students.
- Sat on a student panel during Fall 2021 New Student Orientation.
- Spoke to prospective engineering graduate students during Spring 2022 campus visit day.